

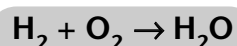
A chemical equation must be balanced, to show that the numbers of atoms are the same on both sides of the equation.

To write a balanced equation, follow these steps.

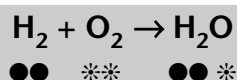
- 1 Write the word equation for the reaction:



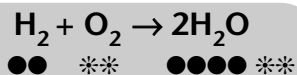
- 2 Write the formula of each reactant and product using the correct symbols:



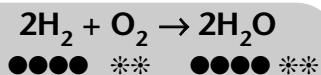
- 3 Draw shapes or coloured dots for each atom. Count the number of each type of atom on each side. There are two oxygen atoms on the left and only one on the right:



- 4 Put a 2 in front of the formula for water. This means '2 molecules of':



- 5 Count the number of each type of atom on each side again. There are four hydrogen atoms on the right and only two on the left.
- 6 Put a 2 in front of the hydrogen molecule so there are two molecules to start with. Now it balances.



Remember: To make the equation balance, you must change the numbers **in front of** the symbols or formulae, not the subscript numbers **in** the formulae.